

Title (en)  
PHASE ANGLE CONTROL FOR SYNCHRONOUS MACHINE CONTROL

Title (de)  
PHASENWINKELREGELUNG FÜR DIE REGELUNG EINER SYNCHRONMASCHINE

Title (fr)  
COMMANDE D'ANGLE DE PHASE POUR COMMANDE DE MACHINE SYNCHRONE

Publication  
**EP 1676358 A2 20060705 (EN)**

Application  
**EP 04785285 A 20040930**

Priority  
• US 2004032068 W 20040930  
• US 50755503 P 20031001

Abstract (en)  
[origin: US2005073279A1] A synchronous machine control device for a polyphase synchronous machine includes a phase detection sensor and a control circuit. The phase detection sensor is set to 90° advanced. The control circuit includes phase detection, commutation driver and time delay circuits. The phase detection circuit is coupled to the phase detection sensor and is configured to determine electrical phase of the machine. The commutation driver circuit is coupled to the phase detection circuit and has high-side and low-side outputs for selectively and alternately controlling commutation of the machine. The time delay circuit is coupled to the phase detection sensor, the phase detection circuit and the commutation driver circuit. The time delay circuit provides a control output to the commutation driver circuit based upon an adjustable setpoint compared to a speed of the machine as measured by the phase detection circuit.

IPC 1-7  
**H02P 1/00**

IPC 8 full level  
**H02P 1/46** (2006.01); **F02D 29/06** (2006.01); **F02D 41/02** (2006.01); **F02D 41/08** (2006.01); **F02D 41/34** (2006.01); **H02P 1/50** (2006.01); **H02P 3/18** (2006.01); **H02P 6/00** (2006.01); **H02P 6/14** (2006.01); **H02P 9/04** (2006.01); **H02P 23/00** (2006.01); **H02P 27/00** (2006.01)

IPC 8 main group level  
**H02P** (2006.01)

CPC (source: EP US)  
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